

REMARKS

Support for Amendments and New Claim 27

Support for the amendments can be found at least on page 8 lines 2-19, reproduced below, and in examples 1, 2, 3, 4 and 6:

Examples of isocyanate reactive groups in the polymer are hydroxy and secondary amine groups. Such reactive groups can be built into the core, macromonomer, or both during its polymerization through use of suitable hydroxy or secondary amine functional ethylenically unsaturated comonomers. Any of the aforementioned hydroxy or secondary amine functional monomers can be used to form these isocyanate reactive groups on the acrylic polymer.

When post reacting the polyisocyanate with such isocyanate reactive groups, the reaction conditions should be chosen so that 100% of the forgoing isocyanate reactive functional groups are reacted with the polyisocyanate, or as close to 100% as can be reasonably achieved. It is generally preferred to use excess isocyanate to drive the reaction to completion. This will result in some of the isocyanate molecules being unattached to the dispersed gelled acrylic polymer. Component (a) is this instance will then be a mixture of unreacted isocyanate and isocyanate functional NAD. The equivalent ratio of NCO to OH/NH groups used during synthesis preferably ranges from 5:1 to 50:1. Typically if the ratio is less than 5:1, the stability of the NAD is compromised. If the ratio is greater than 50:1, the amount of NAD particles introduced in the final coating is insufficient to improve the tack free drying time of the coating.

Support for the new claims can be found on page 8 line 26 through page 9 line 1.

Comments regarding Office Communication dated May 16, 2007.

The current Office Communication discusses rejections under 35 USC 102(b) and on the ground of non-statutory obviousness-type double patenting. As these two rejections are the only rejections presented, applicants will assume that the previous response to the Office Communication dated May 16, 2007 addressed all of the Examiners concerns except for those mentioned in the current Office Communication.

Claims 16-18, 22-24 and 26 are rejected under 35 USC 102(b) as being anticipated by Antonelli et al. (US 5,310,807)

Antonelli does not anticipate the currently claimed isocyanate adduct that is the reaction product of (1) a gelled acrylic polymer with (2) an excess of polyisocyanate compounds. Applicants (1) gelled acrylic polymer consists essentially of

- (i) a crosslinked core comprising polymerized ethylenically unsaturated monomers, wherein the core is not soluble in the organic liquid carrier, and
- (ii) linear stabilizer polymeric components chemically grafted to said core wherein said linear stabilizer polymeric components have weight average molecular weights in the range of about 500-20,000;

wherein

- (c) the core (i), the stabilizer polymeric components (ii), or both (i) and (ii) contain isocyanate-reactive hydroxyl and/or secondary amine functional groups attached thereto; and
- (d) the excess of polyisocyanate compounds are present in an amount so that the ratio of NCO to OH/NH groups ranges from 5:1 to 50:1.

It is clear from the currently amended Claim 1 and a reading of the specification on page 8 line 4 through page 9 line 8, that the excess of polyisocyanate compounds react with the hydroxyl and/or secondary amine functional groups that are present in the gelled acrylic polymer. Antonelli does not teach or describe polymers of this type.

Antonelli describes incorporating isocyanate functionality on the macromonomer using “ethylenically unsaturated isocyanates such isocyanato ethyl methacrylate, isocyanato ethyl acrylate, methacryol isocyanate”. See column 3 lines 14-18 and 35-37. The disclosure of Antonelli does not discuss using polyisocyanate compounds to produce an isocyanate adduct that is the reaction product of a gelled acrylic polymer with an excess of polyisocyanate compounds.

Since the claimed isocyanate adduct is not made using ethylenically unsaturated isocyanates, the claimed invention is not anticipated by Antonelli.

Claims 16-18, 22-24 and 26 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of US Patent No. 7017264.

In the absence of the Examiner identifying any allowable subject matter, applicants would prefer to withhold comments regarding the 7017264 patent until such time as the Examiner has allowed any of the claims.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,

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